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The present invention relates to a method and apparatus for quoting, administering, maintaining, claim processing, and renewing life, health and related coverages for clients, especially group clients. Significantly, the method may be employed so that information regarding any aspect of the insurance transaction need only be entered once, minimizing the risk of error and providing additional security for the information. The method also supports a Management Information System tool for providing timely and accurate information on quotes, sales, claim status, and client administration.

1 2. DESCRIPTION OF THE PRIOR ART

Insurance administration benefits from computerized processing by minimizing the risks of lost and mishandled information as well as reducing the cost of doing business. Because of the multiple combinations of insurance products available, it is very important to prepare accurate proposals and illustrations of insurance products for each prospective client. Computerized processing is of assistance in this area as well.

In most insurance companies, requests for insurance quotes are typically processed on paper through a sales office and then sent to a corporate office for additional processing. The processing of these papers results in time delays, multiple requests for information, and the increased risk of error in collecting or processing information.

Previous processes have been produced to provide proposals in a group insurance setting. These products were inefficient, restrictive and time consuming for the users. Among the problems with previous quoting programs were the lack of comprehensive coverage databases and the inability to transfer information amongst the several departments within the insurance company.

Group insurance products generally have a renewal cycle of one to three years. As a result of this cycle, the need to provide not only temporal information about a group insurance transaction, but also information that spans a time interval, is critical. The paper-based processing of this information is cumbersome and expensive.

1 SUMMARY OF THE INVENTION

2 This system uses thin client architecture to improve the speed and accuracy of
3 the entire insurance operation. To overcome the complexity of the calculation in a
4 requested quote and to speed up the operation of presenting a proposal, the processes
5 are divided into server and client processes. Quote information is entered at the client
6 level and complex calculations to generate the quote are performed at the server
7 through a Wide Area Network ("WAN"). This configuration results in the ability to
8 produce on-line quotes using rule based quoting logic and completing the process in
9 seconds. This system also eliminates the need for human interaction beyond the
10 collection of information by the sales representative.

11 The present invention is a method and apparatus for automatically quoting,
12 processing, maintaining, claim processing, and renewing life, health and related
13 coverages. It comprises an integrated computer system containing several processing
14 modules. The processing module into which data concerning the group is initially
15 entered is the quoting engine ("QE") module. The QE module includes a process for
16 maintaining and describing the coverages available to the group. The QE module also
17 contains processes for rating the insurance and generating a proposal for the client.

18 Another processing module within the system is a Soldcase module. The
19 soldcase module administers sales and commission data and provides information
20 regarding the selected coverage to other modules within the system.

21 Another module within the system is an Advanced Relational Database
22 Information System ("ARDIS") module. The ARDIS module processes billing, premium
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1 processing, administering of payment of commissions and other general administrative functions.

5 A Document Generator module is another module within the system, which is employed to produce documents such as policies and certificates in compliance with state and federal laws. A Claims module adjudicates new claims, maintains claim histories, and issues funds to designated recipients.

10 The final module within the system is the Renewal module. The Renewal module monitors and updates information regarding the client and the insurance to determine if renewed coverage should be sold to the client and, if so, at what price. The introduction of a Renewal module within the general administrative computer system represents a significant improvement over prior art insurance methods. The Renewal module greatly reduces the amount of time necessary to generate a renewal quote and through automation, greatly decreases the number of manually generated renewals.

15 The described method is capable of providing not only temporal information regarding a transaction, but also information that spans the life of the insurance product through the employment of a relational database to handle large amounts of data over the contract term. This feature of the invention is especially useful in instances where the client is a group. Furthermore, each module within the method fully communicates with each other module. Accordingly, information entered into a module is utilized throughout the transaction within the insurance company. Since information must only be entered once, fewer insurance company representatives need come in contact with the information, providing greater security for the information.

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1 It is, therefore, an object of this invention to provide a method and apparatus for
quoting, issuing, claims processing, and administering insurance coverage that
minimizes the amount of information that must be gathered by individuals to administer
insurance.

5 It is a further object of this invention to provide a method and apparatus for
quoting, issuing, claims processing, and administering insurance coverage that
minimizes the duplication of manually entered information.

10 It is yet another object of this invention to provide a method and apparatus for
quoting, issuing, claims processing, and administering insurance coverage that monitors
client information over the life of the coverage and automatically produces information
pertaining to the renewal of the policy.

15 It is a further object of the invention to provide a method and apparatus for
quoting, issuing, claims processing, and administering insurance coverage that
improves the speed and accuracy of the insurance operation and increases the overall
quality of the products purchased by the insurance consumer.

20 It is another object of this invention to provide a method and apparatus for
quoting, issuing, claims processing, and administering insurance coverage that
minimizes the number of employees that have access to client information, increasing
the level of security for that information.

25 These and other objects of the invention will be apparent to those skilled in the
art.

1 BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a diagram that shows the flow of information through the claimed method and the output generated thereby;

5 Figures 2A and 2B represent a flowchart of the Request for Quote process within the Quoting Engine ("QE") module;

Figures 3A and 3B are a flowchart of the coverage process within the QE module;

Figure 4 is a flowchart of the rating calculation process within the QE module;

10 Figure 5 is a flowchart of the proposal process within the QE module;

Figures 6A and 6B are a flowchart of the Soldcase process within the Soldcase module;

Figure 7 is a flowchart of the billing process within the ARDIS module;

15 Figure 8 is a flowchart of the premium process within the ARDIS module;

Figures 9A and 9B are a flowchart of the commission process within the ARDIS module;

Figure 10 is a flowchart of the document generation process within the Document Generator module;

20 Figure 11 is a flowchart of the claims process within the Claims module;

Figure 12 is a flowchart of the renewal download process within the Renewal module;

Figures 13A and 13B are a flowchart of the renewal process within the Renewal module; and

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1 Figure 14 is a schematic of the hardware constituting the apparatus of the invention and employed in the method of the invention.

DESCRIPTION OF THE PREFERRED EMBODIMENT

5 The flow of information through the method of quoting, issuing, claims processing, and administering insurance coverage 10 of the present invention is shown in Figure 1. It indicates that between the collection of data and the creation of documents representing the transaction, data is processed in some combination of six different modules; a Quoting Engine ("QE") module 100, a Soldcase module 200, an
10 Advanced Relational Database Information System ("ARDIS") module 300, a Document Generator module 400, a Claims module 500, and a Renewal module 600. The names given the modules and the accompanying steps performed by the modules are not intended to be rigidly applied, but are intended only to provide an example of the claimed method. Variations on the organization of the method 10 are anticipated and
15 intended to be claimed herein.

 The method 10 is to be employed by an insurance company 2, also referred to as the user. As shown in Figure 1, the broker 12 contacts the prospective client 14, usually a group, to obtain relevant information. Although the method 10 may be employed for
20 individual insurance administration, it is described generally herein as a method for administering group insurance. Once the necessary information is entered into the QE module 100, the QE module 100 then generates the premium rate and an appropriate proposal 18 is sent to the prospective client 14.

1 Once the client 14 accepts the proposal 18, the sales representative 16, who
may be any employee of the insurance company 2, enters additional information about
the transaction, such as commission, producer and binder amount information, into the
Soldcase module 200. The Soldcase module 200 retrieves all the relevant information
5 from the QE module 100 along with additional information provided by the sales
representative 16 to generate a sales entry and assigns a policy number to the
transaction. This policy number is subsequently transferred to the ARDIS module 300,
which includes a database. The Soldcase module 200 also generates the approval
10 letter 20, if the client 14 has requested a letter. The Soldcase module 200 then
transfers client information, coverage information, sold rate, sold premium and binder
amount in addition to the policy information to the ARDIS module 300.

15 Once the product has been sold to the client 14, the ARDIS module 300 then
retrieves the relevant information and creates necessary entries into the database to
administer the client's account. The ARDIS module 300 is used to maintain the
information throughout the life of the product and to provide certificate, commission,
premium and member information to the Document Generator module 400, lockbox,
account department and various subsystems, respectively. The Document Generator
20 module 400 retrieves all of the necessary information from the ARDIS module 300
databases, generates contracts and certificates 28, and maintains an electronic copy of
those documents.

25 The Claim module 500 receives information from the ARDIS module 300 once
the case is issued. The information is passed from the ARDIS tables to the various

claim tables through a middleware interface that synchronizes the data. The Claims module 500 adjudicates new claims, maintains claim histories, and issues funds to designated recipients

The Renewal module 600 retrieves the policy data from the ARDIS module 300 databases for a client 14 whose policy is scheduled to expire in the near future. This information is sent to the renewal underwriting department 30 for further renewal processing and, at the same time, may create a renewal letter (not shown) for the client 14. Based on the information collected by the underwriting department 30, the QE module 100 generates the renewal premium rate, which is then fed back to the Renewal module 600 and ARDIS module 300 databases. The Renewal module 600 retrieves the necessary information from the ARDIS module 300 and QE module 100 databases to provide the renewal proposal 32. This information could include revised census details used to generate the revised renewal rate. Once the client 14 renews the product, the renewal module 600 updates the necessary information in the ARDIS module 300 database for continued administration, including updated premium billing rates and commission adjustments. The Renewal module 600 also generates the renewal letter (not shown) that is sent to the client 14; the Document Generator module 400 again will maintain the electronic copy of the renewed contract.

The flow of information through the method 10 is shown in more detail in Figures 2-12. The initial steps in the method 10 include the processing of information in the QE module 100. Among the steps taken in the QE module 100 are the Request For Quote ("RFQ") process 102, the coverage maintenance process 130, the rating process 150

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1 and the proposal process 179. The initial information may be gathered in any form,
such as paper, e-mail, facsimile or other medium as requested by the client 14.

5 Figures 2A and 2B depict the steps required by the RFQ process 102 within the
QE module 100. This portion of the QE module 100 accepts employer information 106,
including employer identification and industry information, from the client 14 or sales
representative 16 and validates the employer information 106. If the employer
identification in the employer information 106 duplicates employer identification in an
employer database 304, then the RFQ process 102 displays a message asking the user
10 to assign a different employer identification. After validating the employer information
106, the RFQ process 102 of the QE module 100 accepts the Standard Industrial
Classification code ("SIC code") 108, which is then validated in step 109 against a SIC
database 306. If the SIC code 108 is not available in the SIC database 306, then it asks
15 the user to enter a valid SIC code 108 for the employer's industry.

20 Throughout this description of the method 10, reference is made to several
databases. In practice, each database may be a section of a larger database and
information stored in a general database may be stored in an individual accessible
database.

25 After validating the SIC code 108, the RFQ process 102 accepts the quote
information 110. The quote information 110 includes group information, group industry
code, quote-effective date, estimated proposed lives, prior carrier, and other standard
industry information. The RFQ process 102 then accepts distributor information 112. In
step 114, the RFQ process 102 validates distributor information 112 with the distributor

1 database 308 and retrieves information regarding the region information 116, sales
information 120 and marketing information 124 from the general database 110 or the
sales representative 16. The information is validated in steps 118, 122 and 126, and
the information regarding the parties to whom the proposal is to be distributed is entered
5 in step 128. The QE module 100 stores the entered information into the quote database
302 and the employer database 304.

10 Figures 3A and 3B illustrate the detail data flow of an example of the coverage
maintenance process 130 for the QE module 100. The method 10 may be used for a
variety of different coverages, and the examples given are not intended to show the
scope of the utility of the method 10, but are only exemplary. The coverage
maintenance process 130 accepts coverage information 132 and plan information 134
from the sales representative 16 and prompts the user to enter appropriate additional
information. In step 135, the coverage maintenance process 130 determines if the
15 entered coverage is 'LIFE'; if so, the program logic then allows the user to enter the
dependents information 136. The coverage maintenance process 130 determines if the
entered coverage is 'DENTAL' or 'Voluntary DENTAL' in step 138; and, if so, in step
139, it then checks whether the census has been entered. If the census has not been
20 entered, the process 130 allows the user to enter the census summary 140. Once the
plan information 134 has been entered, then it allows the user to enter class information
142. For 'LIFE' and 'Voluntary LIFE' coverages, as determined in step 143, the
coverage maintenance process 130 allows the user to alter coverage amounts 144.
Once the coverage information 132, plan information 134 and class information 142

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1 have been entered and validated, the coverage maintenance process 130 stores all the
data in the coverage, rating and benefit tables of the general datables 310.

5 If the entered coverage is Long Term Disability ("LTD") as determined in step
147, the coverage maintenance process 130 checks whether there is an associated
record needed for Long Term Disability Cost Containment ("LTGCC") or not depending
on the entered values in step 148. If such a record is needed, the coverage
maintenance process 130 automatically creates the record 150. If the entered coverage
is 'DENTAL' as determined in step 151, the coverage maintenance process 130 then
10 checks for the plan type in step 152. If the plan type is PPO and is quoted for multi-area
as determined in step 153, then a second record for the indemnity option 154 is
automatically created. This information is then validated.

15 After validation is complete, the coverage maintenance process 130 checks the
underwriting guidelines and determines the quote type for the information that has been
entered in step 156. Typical types of quotes might be "Super Express" (SE), Custom
(CU) or Decline (DE). The SE and DE quote types are completely automated within the
system, automatically generating in seconds a proposal 18 or a letter declining
coverage (not shown), respectively. If the quote type is determined to be CU, the
20 information is further analyzed to determine whether a proposal 18 or letter declining
coverage will be sent to the client 14. Among the considerations employed in
determining the quote type are custom business rules and other information supplied by
the underwriting department 30, actuarial department (not shown) and compliance
department (not shown).

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1 Figure 4 is a flowchart of the rating process 160 within the QE module 100.
Once the user selects a quote sequence 162, the rating process 160 displays all the
non-rated options under that quote in step 163. It allows the user to select multiple
options 164 at the same time. It loops through all the selected options beginning with
5 step 165. If the rating is successful as determined in step 166, then it determines the
quote type for that option in step 168. If the quote type changes to CU, as determined
in step 169, all the rules for that quote type are displayed in step 170. The process 160
allows the underwriting department 30 to change some of the values and recalculates
10 the quoted rates. After calculating and entering the premium rates in step 172, the
rating process 160 allows the user to print the rating worksheet 174, ending the loop for
that option in step 176. If, for some reason, the calculation fails, then it displays a
message in step 178 so the sales representative 16 or other insurance company
representative can change the information accordingly and re-rate the option. Once the
15 option has been rated, the process 10 does not allow any changes to the quoted
information.

 Figure 5 is a flowchart of the proposal process 179 within the QE module 100.
Once a user selects a quote sequence 162, the proposal process 179 displays all the
20 rated options as well as the decline options under that quote in step 180. It allows the
user to select multiple options at the same time in step 181 and loops through each
option starting in step 182. If the proposal process 179 declines an option in step 187, a
letter 26 notifying the client 14 of the denial is generated. The proposal process 179
determines the type of coverage, eg. DENTAL, in steps 183 and 184 and asks for
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1 additional information for those coverages in steps 185 and 186. If an appropriate
proposal 18 is generated in step 188 and validated in step 189, then the proposal 18 is
transmitted to the broker 12 and the client 14 by mail, fax, e-mail, or other medium. As
with all input information, all output of the method 10 may be in any form as requested
5 by the client 14. If, for some reason, the proposal process 179 does not generate a
proposal 18, then it displays a proper message in step 190 so the sales representative
16 can change the information accordingly and re-generate the proposal 18. Following
the generation of the proposal 18 or display of the message 190, the loop ends in step
10 192.

Figures 6A and 6B are a flowchart of the Soldcase module process 202. Once a
user selects employer information 106, the soldcase process 202 displays all the
proposed options for that client 14 in step 204. The user then selects the appropriate
option in step 207 and verifies the checklist in step 209. Once the information is
15 validated, the soldcase process 202 stores all the data in the appropriate database
tables and updates the soldcase status to 'work in progress' at step 212.

The process 202 then loops through all the coverages associated with the
selected option beginning at step 214. It may ask for additional information for each of
20 the coverages in step 216. It may also ask for the commission and producer details in
step 218, storing this information during step 219 into the appropriate database tables in
the general database 310. After validating the data, the soldcase process 202 checks
whether the user wants to approve the coverage in step 221 allowing the user to
approve the coverage in step 222, ending the loop at step 223. If the coverages are not
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1 approved as determined in step 225, the system displays an appropriate message at
step 224. If all the coverages are approved for that group, the process 202 allows the
user to submit or approve the checklist at step 226 and updates the status of the policy
to 'approved' in step 228. After approval, the user can enter the policy information 230,
5 store the policy data in step 232, and transfer this information to the ARDIS module 300
in step 234. The soldcase process 202 also determines whether an approval letter has
been requested in step 235 and generates the approval letter 20, if it has been
requested. The policy data is then stored in the general database tables 310 in the
10 ARDIS module 300 in step 236.

Figure 7 is a flowchart of the billing process 312 within the ARDIS module 300.
The billing process 312 supports manual as well as automatic billing. A user can
request a specific bill at step 313 and provide a manual billing request 314; otherwise,
automatic billing is designed to occur on all the bills that are due based on their billing
15 periods such as on the 10th or 20th day of the month as determined in steps 315 and
316. The automatic billing generates a bill request in step 318 that is similar to the
manual billing request entered in step 314.

The billing process 312 determines whether the request is to draw the bill 319 or
20 to reprint the bill in step 320. If the request is to draw a bill, the billing process 312 in
step 321 seeks the bill in the billing table of the general database 310. If it finds a bill,
the past term bill is deleted from the billing table in step 322 and a new billing record is
created in the billing table in step 324 to replace the existing past term bill. If no past
term bill exists, the billing process 312 creates a new record in the billing table in step

324. It uses employer information, coverage information, rate information, enrollment information and premium information from the general database 310 to generate a billing record. After creating the record in the table, it generates a bill in step 326 by accessing the billing data 327. If the bill is a virtual bill as determined in step 328, the billing process 312 rolls back all the database changes in step 330 and stores the billing information in the archived database in step 332. If the request is made to reprint the bill in step 333, then it generates a bill 336 based on current bill information. If the request is made for a specimen bill in step 334, the process only displays the bill on the screen in step 335.

Figure 8 is a flowchart of the premium process 338 within the ARDIS module 300. This process supports manual premium processing as well as automatic premium processing and determines which method is to be applied in steps 339 and 340. In manual processing, a user can enter the payment manually in step 341 when the payment is received from the customer at 342. In the automatic process, the ARDIS module 300 receives premium data 344 from the bank via an electronic media in step 345. Once the payment has been received in step 346, the process verifies and validates the data that was received in steps 348 and 349. If the received data is not valid, the user contacts the bank and asks for the new data in step 350.

After completing the initial steps of manual or automatic premium processing, the process 338 then applies all the premium data to the billing location in step 352. If the payment received is within the tolerance limit as determined in step 353 -- i.e. the difference of bill due amount and the payment received -- the premium process 338

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1 marks the corresponding bill as paid in step 354. Otherwise, the payment is applied to
the suspense account in step 355. If the payment received is more than the bill amount,
as determined in step 357, the difference is added to the suspense account in step 355.
The process 338 also handles the reversal of premium. In the case where a reversal is
5 required as determined in step 356, the process 338 marks the bill as a reversal in step
358 and moves the premium amount to the suspense account or another billing location
in step 360 depending on the situation. In each instance, data from the premium
process 338 is transferred to the general database 310 in the ARDIS module 300 in
10 step 362.

Figures 9A and 9B are a flowchart of the commission process 363 within the
ARDIS module 300. The commission process 363 is preferably executed periodically in
a batch process and keeps track of each batch cycle. It picks all the paid premiums for
which the commissions have not been accounted during previous batch cycles in step
15 364. In step 365, the commission process 363 retrieves the payment data from the
premium payment table in the general database 310 and determines whether the
premiums on the policy are submitted gross or net of commissions in step 366. If the
policy is gross, then the commission process 363 retrieves scale, percentage of the
20 scale and year-to-date premium information from the general database 310 in step 368.
The commission process 363 also calculates the commission based on the information
retrieved in step 368. It stores the calculated commission in the commission table and
creates an entry into the general ledger in step 370. For the net policy, the process 363
stores in the commission table in step 372 the commission amount withheld by the
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1 producer. In each case, the commission data is stored in step 374. These steps are
repeated for each unaccounted policy with the final step of the loop being step 376.

5 The commission process 363 then calculates the gross commission for each
producer in step 377 and prepares the commission statement 378 which is printed in
step 379. The process 363 also creates and prints the commission check for the
producer in steps 382 and 383 if the commission amount is greater than a predefined
amount as determined in step 381. Once the statements and/or checks have been
generated, the printed output is mailed to the appropriate recipients in step 384.

10 Figure 10 is a flowchart of the document generation process 402. The
caseworker 22 requests the policy and certificate generation in step 404. Based on the
caseworker's requests, the process 402 generates the appropriate document in step
405 and, optionally, prints the document in step 406. In step 407, the process 402
allows the user to compare the newly generated document with an old document, as in
15 the case of renewal coverage, and allows the user to change the generated document
as required. If the generated document is a policy, as determined in step 408, step 410
of the process 402 generates a letter and the contract along with an image of the policy.
If the generated document is determined to be a certificate in step 408, the process 402
20 uploads the certificate to the imaging system and generates the appropriate booklets in
step 412. The generated document or documents are transmitted to the client 14
and/or sales representative 16.

25 Figure 11 is a flowchart of the claim module process 502 employed in the Claim
module 500. The claim module process may provide claim processing for various

1 products through different claim sub-modules. Each claim sub-module would apply the
claim module process 502.

5 Once a claim is received it is electronically imaged in step 504 and the data is
stored in step 506 to a claim database 508. Upon receipt of the claim, verification is
made that all required documentation is attached in step 510. If any documentation is
missing, a request is sent to the appropriate party in step 512 requesting the missing
information. The claim is then reviewed in step 514 and verification is then made that
10 all required information is included in the documentation in step 516. If any information
is missing, a request is sent to the appropriate party in step 518 requesting the missing
information. Additional information that is relevant to the claim, but that is not submitted
with the claim may be entered in step 520 and stored in the claim database 508. The
claim is then analyzed to determine whether the claim will be approved or denied in step
15 522. If the claim is determined to be approved in step 524, payment or a waiver is
generated in step 526 and the appropriate documents, including checks 24, are
transmitted in step 528. If the claim is determined to be denied in step 524, a denial
letter is generated in step 530 and transmitted in step 532.

20 Figures 12, 13A and 13B are flowcharts of the processes employed in the
Renewal module 600. The Renewal module utilizes two major processes: the renewal
download process 604 shown in Figure 12 and the actual renewal process 606 shown
in Figures 13A and 13B.

25 The renewal download process 604 is shown in Figure 12. In step 608, the
renewal download process 604 downloads existing data either from the ARDIS module

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1 general database 310 or from the legacy mainframe system, depending on the age of
the group. If the data is downloaded from the ARDIS database, as determined in step
610, the process 604 retrieves groups whose anniversary date is 90 days before the
renewal date, as determined in step 611. If the data is downloaded from the mainframe
5 system, as determined in step 612, the process 604 retrieves groups whose anniversary
date is 120 days before the renewal date, as determined in step 613. Once the data
has been downloaded and validated, the process 604 stores the updated data in the
renewal database in step 614. After storing the data in the database, the process
10 checks whether the client 14 is a self billed group in step 615, or a list bill group in step
617. If it is a self billed group, the process 604 determines the contribution of the client
14. If the contribution is 100% as determined in step 618, then it checks whether the
eligibility letter 622 has already been received in step 620. If the eligibility letter 622 has
not been received, then it generates the eligibility letter 622 in step 621. If the eligibility
15 letter 622 has already been received, then it checks for the participation. If the
contribution is less than 75% as determined in step 624, the process 604 then
generates the participation letter 625 in step 626. If the participation is not greater than
75%, the loop ends in step 628. If the contribution is less than 100% as determined in
20 step 618, then the process 604 checks whether the census letter 630 has been received
in step 629. If not, then it generates the census letter 630 in step 632 and the loop ends
in step 628.

If the group is list billed as determined in step 617, then the process 604 checks
for the contribution. If the contribution is not 100% as determined in step 619, then it

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1 checks whether an eligibility letter 622 has been received in step 620. If not, then it
generates an eligibility letter 622 in step 621; otherwise, it checks whether the
participation is less than 75% in step 621. If the participation is less than 75%, then the
process 604 generates the participation letter 625 in step 626 and the loop ends at step
5 628.

The renewal process 606 is shown in Figures 13A and 13B. During the renewal
process 606 all the data is downloaded, verified and the renewal rates are calculated.
After downloading the data in step 634, the process 606 identifies the renewal status for
10 each downloaded renewal. The renewal process 606 also allows the underwriting
department 30 to change the renewal rate after the closure in step 669. If the
underwriting department 30 elects to revise the rates, the revised rates are entered in
step 670 and the updated renewal status is stored in step 672. The underwriting
department 30 can then either close the transaction or revise the rates in step 674, but
15 in that case, the user must update the renewal rate into the corresponding ARDIS
module general database 310 or in the mainframe system manually in step 676 and
store the changes in the database 310.

As can be seen from the foregoing, throughout the method 10, no information
20 must be entered into the method 10 more than once, and the information may be built
upon throughout the method 10. Furthermore, no entered information need be made
available to insurance company personnel other than as needed, preserving the
security of the information.

1 Figure 14 shows a preferred configuration of apparatus 700 for quoting, issuing,
and administering insurance coverage for a group. Other configurations are
contemplated and the following described configuration is not intended to be limiting,
but only exemplary.

5 Two servers 702 and 704 house the test and production databases, respectively,
and are connected through a Fiber Distributed Data Interface ("FDDI") ring 706. The
production database server 704 contains the group client information and is used for
production processing. A program development staff primarily uses the test database
10 server 702 to modify existing programs and develop new programs. A similar server
configuration exists for the local area network based file servers 708 and 710 which
support test and production functions, respectively. This configuration allows the
development staff to perform functional testing and the quality assurance and customer
acceptance personnel to test developed software to ensure new programs satisfy the
15 standards, quality and functionality before being employed on the production servers.

The sales office 712 has at least one workstation 714 connected to the
production database 704 through a series of metaframe servers 716 using a frame relay
network 718. Each sales office workstation 714 is connected to a local printer 720 for
20 the production of proposals 18 and other necessary documents. A facsimile server 722
is used to send generated documents to the client 14 as well as to receive information
from the client 14.

As shown in Figure 14, the data center 724 has much of the hardware used in
the method 10, and other hardware is located at a home office location 726. The home
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1 office 726 and data center 724 may be in a single or several locations. Hardware within
the home office 726 includes a workstation 728 that is used to print commission checks;
an imaging server 730 that is used to create images of generated legal documents; and
a users workstation 732 that is used to enter client information, renewal information, and
5 other data not gathered at the sales office 712. The images of the generated legal
documents produced by the imaging server 730 are uploaded to the image database,
which is stored on the image database computer 734, shown as an I.B.M. AS-400. As
with the sales office 712, the workstations within the home office 726 are connected to a
10 local laser printer 736.

In addition to the above hardware, additional servers are employed to facilitate
the transfer and storage of information. An e-mail server 738, shown as a NOTES/e-
mail server, is used to exchange internal e-mail messages between workstations. A
transfer server 740 is used to receive premium data from the lock box 742 via modem
15 743, which is then uploaded to the database 704. Optionally, the hardware may be
connected to an existing mainframe 744 for the provision of historical information.
Ideally, such a connection will be temporary and the mainframe 744 will be phased out
of the apparatus 700 configuration.

20 Thus it can be seen that the invention accomplishes at least all of its stated
objectives.